**BEFORE**

**THE PUBLIC SERVICE COMMISSION**

**OF SOUTH CAROLINA**

**DOCKET NO. 2019-184-E**

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South Carolina Energy Freedom Act (H.3659) Proceeding to Establish Dominion Energy South Carolina, Inc.'s Standard Offer Avoided Cost Methodologies, Form Contract Power Purchase Agreements, Commitment to Sell Forms, and Any Other Terms or Conditions Necessary (Includes Small Power Producers as Defined in 16 United States Code 796, as Amended) – S.C. Code Ann. Section 58-41-20(A) )
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# DIRECT TESTIMONY OF STEVEN J. LEVITAS

# ON BEHALF OF

# THE SOUTH CAROLINA SOLAR BUSINESS ALLIANCE

**SEPTEMBER 23, 2019**

**Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

**A.** Steven J. Levitas. My business address is 130 Roberts Street, Asheville, North Carolina 28801.

**Q. WHAT IS YOUR OCCUPATION?**

**A.** I am the Senior Vice President for Strategic Initiatives for Pine Gate Renewables, LLC.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND XPERIENCE.**

**A.** I received a B.A. from the University of North Carolina at Chapel Hill in 1976 and a J.D. with Honors from Harvard Law School in 1982. After clerking for a federal district court judge, I spent four and half years as a commercial litigator before becoming Director and Senior Attorney in the North Carolina office of the Environmental Defense Fund, a national public interest advocacy organization. In 1993, North Carolina Governor Jim Hunt appointed me to serve as Deputy Secretary of the North Carolina Department of Environment, Health, and Natural Resources. Following my four-year tenure in that position, I spent the next twenty years as a partner in two private law firms where my practice was focused on environmental and energy matters. During the last six of those years, a particular emphasis of my practice was representing renewable energy companies, including the owners of "Qualifying Facilities" or "QFs" under the federal Public Utility Regulatory Policies Act of 1978 ("PURPA"), 16 U.S.C. §§ 824a-3 *et seq.*, in the negotiation of power purchase agreements ("PPAs") and renewable energy credit/certificate ("REC") purchase agreements with utilities, particularly with Duke Energy Carolinas ("DEC") and Duke Energy Progress ("DEP")(collectively, "Duke") in North and South Carolina. Over a period of several years, I was heavily involved in negotiations with attorneys for Duke regarding the model PPA that is the basis for the Large QF PPA proposed by Duke in Docket Nos. 2019-185-E and 2019-186-E. I was also frequently called upon to talk to investors and lenders about their requirements with respect to the terms and conditions of such agreements and to assist in resolving concerns about proposed agreements. In addition, I represented the North Carolina solar industry in connection with the North Carolina Utility Commission's ("NCUC") approval of standard offer PURPA PPA terms and conditions and represented a group of QFs in litigation against Dominion North Carolina Power before the NCUC concerning the formation of "legally enforceable obligations" or "LEOs" under PURPA.

I continue to be employed part-time by the law firm of Kilpatrick, Townsend & Stockton as Senior Counsel and in that capacity represent the North Carolina Clean Energy Business Alliance in the current biennial PURPA "avoided cost" proceeding, NCUC Docket No. E-100 sub 158, which deals with a number of issues similar to those presented in this proceeding.

**Q. PLEASE DESCRIBE YOUR EMPLOYMENT IN THE SOLAR INDUSTRY.**

**A.** In January of 2016, I became Vice President for Business Affairs and General Counsel for FLS Energy, Inc. ("FLS"), a North Carolina-based utility scale solar developer. In that capacity, I continued to be involved with PPA and REC agreement terms and conditions. In addition to ongoing negotiations with Duke about PURPA PPA matters, I engaged in extensive PURPA PPA negotiations with attorneys for NorthWestern Energy in Montana and led FLS's successful challenge at the Federal Energy Regulatory Commission ("FERC") to the Montana Public Service Commission's unlawful implementation of PURPA.

In January of 2017, following the acquisition of FLS by Cypress Creek Renewables, I was appointed to the position of Senior Vice President for Regulatory Affairs and Strategy at Cypress Creek Renewables, a position I held until joining Pine Gate earlier this month. In that capacity, I was responsible for and managed all aspects of policy, regulatory, and government affairs activity at Cypress Creek, including our work on policy development relating to PURPA policy and PPA terms and conditions in several states and at the federal level. Of particular note, I was heavily involved on behalf of Cypress Creek and the solar industry in potential PURPA rulemaking at FERC, including playing a major role in the development of the Solar Energy Industries Association's extensive comments on PURPA reform recently filed at FERC and participating in more than dozen meetings with FERC Commissioners and staff regarding PURPA.

While at Cypress Creek, on several occasions I reviewed and provided internal comments on PPAs being negotiated with South Carolina Electric & Gas, the predecessor of Dominion Energy South Carolina, Inc. ("Dominion").

I have also had extensive involvement with PURPA matters in Michigan, including, in addition to the testimony I describe below, (1) representing the solar industry in largely successful negotiations regarding Consumers Energy Company's ("Consumers") proposed Standard Offer Tariff and Standard Offer Power Purchase Agreement ("Consumers PPA") in MPSC Case No. U-18090; (2) challenging Consumers' refusal to enter into PURPA PPAs with QFs owned by Cypress Creek; (3) playing a leading role in successfully resolving Cypress Creek and other solar developers' disputes with Consumers about their rights under PURPA; and (4) being an active participant in the Michigan PSC's ongoing rulemaking concerning LEO formation.

I was also heavily involved with the development and passage of H.B. 589 in North Carolina, which modified the state's implementation of PURPA and was one of the principal authors of the section of H.B. 3659 dealing with PURPA. Finally, I have been a frequent speaker and presenter on PURPA across the country.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

**A.** I am testifying on behalf of the South Carolina Solar Business Alliance ("SCSBA").

**Q. HAVE YOU FILED TESTIMONY WITH THIS COMMISSION PREVIOUSLY?**

**A.** Yes. I recently filed testimony in Docket Nos. 2019-185-E and 2019-186-E addressing similar issues as I will discuss here as they relate to DEC and DEP. In addition, on two occasions I have participated in allowable ex parte briefings to this Commission where the principal focus of my presentations was on PURPA.

**Q. HAVE YOU FILED TESTIMONY WITH OTHER PUBLIC SERVICE COMMISSIONS?**

**A.** Yes. I filed Direct Testimony on April 11, 2018 in MPSC Case No. U-18090 regarding Consumer Energy Company's ("Consumers") proposed Standard Offer Tariff and Standard Offer Power Purchase Agreement ("Consumers PPA"). In my Direct Testimony, I described my concerns with multiple terms and conditions proposed in the Consumers PPA. I similarly filed Direct Testimony on April 23, 2019 in MPSC Case No. U-18091 regarding DTE Electric Company's proposed Standard Offer Tariff and Standard Offer Power Purchase Agreement.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

**A.** I will discuss and comment on Dominion's proposed Large QF PPA, proposed Standard Offer PPA, proposed "Notice of Commitment to Sell" form, and certain aspects of its proposed solar integration charge.

**Q. ARE YOU SPONSORING ANY EXHIBITS?**

**A.** Yes. I am sponsoring Exhibits Levitas-1, Levitas-2, and Levitas-3. Levitas-1 is a redlined copy of the proposed Dominion Large QF PPA (Dominion Exhibit JEF-1) reflecting proposed revisions to the PPA to address concerns discussed in my testimony. Because Dominion's proposed Standard Offer PPA (Dominion Exhibit JEF-2) is virtually identical to its proposed Large QF PPA, I have not separately marked up that document. However, my comments on, and proposed modifications to, the Dominion Large QF PPA apply with equal force for Dominion's Standard Offer PPA. Levitas-2 similarly marks up DEC's proposed Notice of Commitment to Sell Form (Dominion Exhibit JEF-3). Levitas-3 is a proposed form Surety Bond to be included as Exhibit F to the PPAs.

**Q. COULD YOU EXPLAIN THE BASIC PURPOSE AND REQUIREMENTS OF PURPA?**

**A.** PURPA was enacted by Congress in 1978 and amended most recently in 2005. A major purpose of Section 210 of PURPA is to diversify the nation's electric energy supply by requiring electric utilities to purchase the output of small (i.e., less than 80 MW) independently owned alternative energy projects (referred to "Qualifying Facilities" or "QFs") at the cost the utility would otherwise incur to generate power itself or purchase it from other sources – referred to as the utility's "avoided cost." Congress required FERC to establish broad guidance regarding the implementation of PURPA, which it has done through rulemaking and numerous orders, but left many of the details of PURPA implementation to the states, subject to compliance with FERC's directives. There are several aspects of PURPA that are particularly relevant to this proceeding. First, based on its view that smaller QFs would have a particularly difficult time negotiating with large monopoly utilities, FERC has required state commissions to adopt pre-approved avoided cost rates for QFs with a capacity of 100 kW or less – referred to as the "standard offer" – and has given states the authority to extend the standard offer to larger QFs. 18 C.F.R. § 292.304(c). States also may establish standard PPA terms and conditions for any size QF. Second, also out of a concern about utility bargaining power and potential recalcitrance, FERC has provided that a QF, in the absence of a formal contract, may obligate a utility to purchase its power at the current avoided cost rate by unequivocally committing itself to sell that output to the utility, thereby establishing a LEO to sell power to the utility, and for the utility to purchase that power. 18 C.F.R. § 292.304(d); *JD Wind 1, LLC,* 130 FERC ¶ 61,127, 61,631 (2010). Finally, FERC has ruled that PURPA PPAs must be of sufficient length to give the QF a reasonable opportunity to attract capital for its project. *Windham Solar LLC & Allco Fin. Ltd.*, 157 FERC ¶ 61,134 at para. 8 (Nov. 22, 2016).

**Q. WHAT STANDARD DO YOU THINK THE COMMISSION SHOULD APPLY IN REVIEWING DOMINION'S PROPOSED DOCUMENTS?**

**A.** I refer throughout my testimony to a standard of "commercial reasonableness." I believe that both PURPA and Act 62 require this Commission to strike a reasonable balance between promoting QF development and protecting ratepayer interests. Contract terms that make it extremely difficult or impossible to finance QF development do not strike that balance. One way to judge commercial reasonableness is by considering terms that have been contained in prior PPAs. However, that factor is not necessarily decisive because a prior PPA may have been financed with great difficulty or at higher cost, or a term in such a PPA may simply not strike a reasonable balance between the competing interests.

**<u>Dominion's Large QF PPA and Standard Offer PPA</u>**

**Q. DO YOU BELIEVE IT IS REASONABLE FOR DOMINION TO UTILIZE ESSENTIALLY THE SAME FORM PPA FOR 2 MW "STANDARD OFFER" QFS AND FOR QFS GREATER THAN 2 MW?**

**A.** Yes, I do.

**Q. DO YOU BELIEVE THAT THE TEN-YEAR CONTRACT TERM PROPOSED BY DOMINION COMPLIES WITH PURPA?**

**A.** As I previously explained, FERC requires that PURPA PPAs be of sufficient length to give QFs a reasonable opportunity to attract capital to finance their projects. That ability turns on the relationship between contract length and contract price. That is, in general, the lower the price the longer the term that will be required to support financing. That's because at a lower price it takes a longer time to generate the same amount of revenues to service debt and pay equity investors. Other witnesses will be discussing this issue in more detail, but I want to make the point that PPA tenor cannot be considered in a vacuum. Other things being equal, given Dominion's aggressively low proposed avoided cost rates, and its proposal to further reduce avoided cost rates by the amount of alleged solar integration costs, longer tenor will be needed than would be the case with a higher avoided cost rate. I also think that ability to attract capital should be considered with respect to an average QF developer, not the most sophisticated ones or those with the lowest cost of capital.

**Q. DO YOU AGREE WITH DOMINION WITNESS FOLSOM'S SUGGESTION THAT LONGER TERM PURPA PPAS INAPPROPRIATELY SUBSIDIZE RENEWABLE ENERGY SUPPLIERS AT THE EXPENSE OF RATEPAYERS?**

**A.** No, I do not. First of all, it is just as likely that Dominion's avoided cost rates will increase over time as that they will decrease, especially given the company's very low current avoided cost rates based on low natural gas prices. FERC has recognized this potential for avoided cost rates to move in either direction over time and thus for the impact of long-term PURPA contracts on ratepayers to balance out over time. Thus, long-term QF PPAs may actually serve as a useful hedge against the potential for increased gas prices in the future. Second, long-term fixed price PURPA contracts are no worse in their impact on ratepayers than this Commission's approval of any utility self-build project—and in fact insulate ratepayers from a number of risks that are inherent to utility self-build projects. (This is discussed at greater length in Mr. Hamilton Davis's testimony on behalf of SCSBA.) Such a decision reflects a determination by the Commission that the utility's recovery from ratepayers of the cost of building and operating the facility over its useful life is prudent given long-term cost forecasts at the time the decision is made. However, if those forecasts subsequently prove to have been erroneous, ratepayers may wind up paying more or less for energy and capacity than they would have under some other alternative. That is just the inevitable result of the need for revenue certainty over a reasonable period of time in order to build any major energy infrastructure project outside of a liquid wholesale market. It would be unfair, unreasonable, and bad public policy to treat QFs differently from utility self-build projects in this regard.

**Q. IN YOUR OPINION ARE DOMINION'S PROPOSED PPAS COMMERCIALLY REASONABLE?**

**A.** I think they are commercially reasonable in many respects, but not in several others.

**Q. IN WHAT RESPECTS DO YOU THINK THEY ARE NOT COMMERCIALLY REASONABLE?**

**A.** First, the PPAs impose substantial liquidated damages on a Seller which is unable to meet its "Completion Date" milestone and allows for termination of the PPA if the Seller misses the Completion Date by more than 120 days.

**Q. WHAT DAMAGES DO DOMINION'S PROPOSED PPAS IMPOSE IN THE CASE OF A QF'S FAILURE TO ACHIEVE THE COMPLETION DATE IN A TIMELY FASHION?**

**A.** Section 4.2 of Dominion's PPAs provide for liquidated damages for a QF who fails to achieve the Completion Date in a timely fashion in the amount of $55.00/kW-AC based on the Facility's Nameplate Capacity. This would result in liquidated damages of $1,100,000 for a 20 MW facility and $4,400,000 for an 80 MW Facility. In addition, where a QF has obtained an extension of the Completion Date by paying Extension Payments (equal to $0.11/kW/AC per day), the QF could be faced with paying additional liquidated damages of as much as $1,000,000.

**Q. DO YOU THINK THIS IS A REASONABLE MEASURE OF DAMAGES?**

**A.** No, I do not. First, I believe these amounts are far in excess of any actual damages Dominion would incur as result of a QF project failing to be placed in service. In South Carolina as in other jurisdictions, liquidated damages are a permissible remedy only to the extent they are reasonable in light of the harm actually caused by the breach. S.C. Code

Ann. § 36-2-718; *Tate v. LeMaster*, 231 S.C. 429, 441, 99 S.E.2d 39, 45-46 (1957). There is no indication that these very large liquidated damages correspond to any actual harm to the utility in the event a QF project fails to achieve its Completion Date. And the claim that Dominion would suffer substantial harm from the failure of a QF to deliver power is very hard to reconcile with Witness Raftery's claims that the company is "approaching operational limits" on the amount of solar capacity that can be accommodated on its system, and that "DESC faces a number of difficulties in handling solar generation" (statements I do not necessarily agree with). Second, the liquidated damages are substantially higher than those proposed by DEC and DEP and I believe they are considerably higher than the liquidated damages amounts contained in prior Dominion negotiated PPAs. Finally, I would note that these liquidated damages are substantially higher than the ones contained in the PURPA PPAs the solar industry negotiated with Consumers Energy in Michigan.

**Q. WHAT WOULD YOU CONSIDER A MORE REASONABLE AND APPROPRIATE MEASURE OF LIQUIDATED DAMAGES FOR FAILURE TO ACHIEVE TIMELY COD?**

**A.** I think the value of $5,000 per MW AC contained in the Consumers PPAs is reasonable up to the first 20 MW of AC capacity. Above 20 MW, I would recommend liquidated damages in the amount of $2,000 MW AC.

**Q. DOMINION PROPOSES TO IMPOSE BOTH EXTENSION PAYMENTS AND COMPLETION-RELATED LIQUIDATED DAMAGES ON QFS. HAVE DEC AND DEP MADE A SIMILAR PROPOSAL?**

**A.** No, they have not. Under DEC and DEP's proposed Large QF PPA, a QF who cannot achieve timely commercial operation of its facility can either terminate the PPA and pay the full liquidated damages, or it can continue working toward commercial operations and pay 1/180$^{th}$ of the liquidated damages for each day (up to 180 days) that Commercial Operation is delayed beyond the original Commercial Operation Date Milestone.

**Q. IF THE COMMISSION WERE TO ADOPT YOUR PROPOSED MEASURE OF LIQUIDATED DAMAGES, WOULD YOU OBJECT TO DOMINION'S PROPOSED EXTENSION PAYMENTS?**

**A.** No, I would not. I don't consider the Extension Payments unreasonable in and of themselves. However, they are unreasonable when tacked onto Dominion's exorbitant and unsubstantiated proposed liquidated damages.

**Q. DO THE DOMINION PPAS AFFORD THE SELLER RELIEF FROM LIQUIDATED DAMAGES AND PPA TERMINATION WHERE THE PROJECT DELAYS ARE CAUSED BY FORCE MAJEURE OR THE UTILITY'S DELAYS IN INTERCONNECTING THE FACILITY?**

**A.** Yes, for the most part. Unlike DEC's and DEP's proposed Large QF PPAs, which unreasonably do not provide relief from the Commercial Operation Date Milestone due to Force Majeure and utility delays, the Dominion proposed PPAs do provide relief to the Seller in these circumstances. My only objection to the Dominion PPAs in this area is that the relief for Interconnecting Utility delays pertains only to the construction of required Interconnection Facilities and doesn't include required Network Upgrades (i.e., necessary improvements to the grid beyond the Delivery Point). This may have been an oversight, but in any case it should be corrected.

**Q. WHY ARE THESE PROVISIONS IMPORTANT?**

**A.** The whole purpose of force majeure provisions in contracts is to relieve parties of liability where they are unable to perform due to acts of God and other unforeseen events beyond their control. In the context of a PPA, the greatest risk of adverse consequences due to force majeure is in connection with construction delays due to extreme weather events. Extreme weather events, especially hurricanes, can affect any project's construction schedule. However, the effect on interconnection work is magnified because Dominion, like many utilities, often diverts its construction crews from interconnection and other routine construction projects to repairing storm damage. These diversions of resources are necessary and appropriate, but they can have a significant impact on construction timetables for interconnection projects. In my opinion, it is totally unreasonable to exclude such circumstances from force majeure relief.

**Q. WHAT ABOUT A SELLER'S INABILITY TO ACHIEVE TIMELY COD DUE TO UTILITY INTERCONNECTION DELAYS?**

**A.** As an initial matter, I would be surprised if the South Carolina courts would allow a party to impose substantial liquidated damages on a counterparty, or terminate a contract, for failure to meet a contractual deadline where the sole reason for that failure was delay by the claiming party. But that aside, while, as I discuss below in connection with LEO formation, I don't think QFs should be allowed to form LEOs or execute PPAs before a certain point in the interconnection process, I believe that after that point the QF should not be responsible for utility delays.

**Q. WHAT IS DOMINION'S PROPOSED COMPLETION DATE DEADLINE?**

**A.** In Section 4.2 of the proposed PPAs, Dominion requires that the QF achieve completion within twelve months following the Effective Date of the PPA or 365 days following the submittal of a Notice of Commitment to Sell Form.

**Q. DO YOU THINK THESE ARE REASONABLE REQUIREMENTS?**

**A.** Given the relief provided for Force Majeure and utility interconnection delays, most QFs should be able to satisfy the Conditions Precedent set forth in Section 4.1 of the proposed PPAs within the specified time periods. However, a simpler approach would be to define the Completion Date in reference to the estimated in-service date contained in the Interconnection Agreement, with a day-for-day extension in the case of the Interconnecting Utility's delays beyond that date.

**Q. HAVE YOU PROPOSED LANGUAGE TO ACCOMPLISH THIS IN SCSBA EXHIBIT LEVITAS-1?**

**A.** Yes, I have.

**Q. IS THERE PRECEDENT IN THE CAROLINAS FOR THIS APPROACH?**

**A.** Yes, there is. My proposed language is taken directly from the form PPAs approved by the North Carolina Utilities Commission for use in connection with Duke's CPRE and GSA programs.

**Q. WHAT DO THE PROPOSED PPAS REQUIRE WITH RESPECT TO GUARANTEED ENERGY PRODUCTION?**

**A.** Section 3.5 of the proposed PPAs contains a Guaranteed Energy Production requirement that differs from Duke's similar provisions in several respects. First, any output less than 85% of the scheduled expected amount (referred to as the "Contract Quantity") constitutes a Shortfall (the Duke trigger is 70%). Second, Dominion accounts for Shortfalls on an annual, rather than the rolling two-year, basis proposed by Duke. Third, the liquidated damages are payable within 30 days of invoicing rather than taking the form of a monthly reduction in contract revenues in the following year. In addition, Section 11.1(h) provides that a failure to hit the 85% threshold in two successive Contract Years is an event of default giving Buyer the right to terminate the PPA.

**Q. DO YOU CONSIDER THESE PROVISIONS TO BE COMMERCIALLY REASONABLE?**

**A.** No, I do not. In my experience these types of provisions vary widely in PURPA QF PPAs, but I think the 70% of estimated annual production contained in the DEC and DEP Large QF PPAs is more reasonable. I believe it would be appropriate and reasonable to conform this provision to Duke's similar provisions, as I have generally done in Levitas-1. In addition, I believe it is totally unreasonable to allow the utility to terminate the PPA based on energy delivery shortfalls. There is simply no logic for such a draconian remedy, the effect of which would be that the parties would then enter into a new PURPA PPA at the then-current avoided cost rate. I note that the DEC and DEP Large QF PPAs do not contain such a provision. As with the Duke PPAs, liquidated damages should be the Buyer's sole remedy in the event of a Shortfall.

**Q. DO THE PROPOSED PPAS PLACE ANY LIMITATIONS ON STORAGE ADDITIONS, INCREASES IN ENERGY OUTPUT, INCREASES IN THE FACILITY DC:AC RATIO, OR SHIFTING IN THE TIME OF DELIVERY?**

**A.** No, they do not. The only such limitation is the prohibition in Section 2.2 on exceeding the stated Nameplate Capacity of the Facility, which is stated in AC.

**Q. DO YOU BELIEVE SUCH ADDITIONAL LIMITATIONS, OF THE SORT PROPOSED BY DEC AND DEP ARE APPROPRIATE?**

**A.** No, I do not. Any concerns about technical or operational impacts of equipment modifications or operating parameters are appropriately addressed under the Commission's interconnection procedures and the parties' interconnection agreement. I do, however, believe it is appropriate for the PPA to prohibit the Seller from exceeding a maximum annual energy production value and have included such a provision in Section 2.2.

**Q. DO THE PROPOSED PPAS INCLUDE APPROPRIATE TERMS AND CONDITIONS FOR ENERGY STORAGE DEVICES COUPLED WITH QF GENERATION?**

**A.** No, they do not. The proposed PPAs do not include any terms related to the integration and operation of energy storage devices, despite the fact that Act 62 requires each utility's avoided cost methodologies to fairly account for "small power producers … utilizing energy storage equipment," and directs the Commission to consider tariffs relating to energy storage. Witness Neely provides indicative pricing for solar plus storage resources in his testimony but offers no explanation of how the rates were arrived at or what the attendant operational requirements are. (Witness Ed Burgess of Strategen Consulting describes several problems with Dominion's approach to solar plus storage rates in his direct testimony for SCSBA, as well as with its proposed criteria for eligibility for the tariff.) Witness Neely also says that "The MW requirements for solar with storage would place it in the category of projects above 2 MW that must be negotiated under the terms of Rate PR - Form PPA," and that in order to be eligible for solar plus storage rates, "Degradation of the storage system will be specifically addressed in any final contractual arrangements between the provider and DESC." The absence of approved PPA language describing the requirements for operation of energy storage devices effectively leaves it to Dominion to decide unilaterally, during PPA negotiations – and without any Commission oversight – what a QF must to do be eligible for solar plus storage rates. This is unreasonable and inconsistent with Act 62's clear directive that utilities develop fair and reasonable solar plus storage tariffs. Furthermore, Witness Neely states that for projects selling under the solar plus storage rate, "DESC will control the dispatch of the storage." It is unclear what Dominion means by this. But while SCSBA agrees that some operational requirements related to the dispatch of energy storage (e.g. to control intra-hour variability, or ensure delivery of power during peak hours) are appropriate, full dispatch by the utility of the storage device is commercially unreasonable and likely inconsistent with PURPA. (Duke has recently withdrawn such a provision from the energy storage protocols proposed for inclusion in its North Carolina PPAs.) This is also addressed in the testimony of SCSBA Witness Burgess, who discusses potential alternative approaches that would be more appropriate. In any event, it is important that the Commission address the issue of appropriate terms and conditions for storage devices in this proceeding.

**Q. DO THE PROPOSED PPAS GIVE SELLERS THE ABILITY TO TERMINATE THE AGREEMENT DURING A REASONABLE DUE DILIGENCE PERIOD?**

**A.** No, they do not.

**Q. DO YOU CONSIDER THIS TO BE COMMERCIALLY REASONABLE?**

**A.** No, I do not. I think a limited diligence period of 30 days is appropriate to allow Sellers to confirm project viability once they have secured pricing. The proposed DEC and DEP Large QF PPAs include such a diligence period. I would also note that negotiated PPAs offered by Dominion's predecessor SCE&G included a 12-month financing diligence period. Finally, a diligence period of this length is really tantamount to the utility offering indicative pricing that is firm for a defined period of time, which is commercially reasonable and consistent with past utility practice in the Carolinas.

**Q. WHAT RIGHTS DO THE PROPOSED PPAS GIVE DOMINION WITH RESPECT TO THE SELLER'S EPC AND O&M CONTRACTS?**

**A.** Section 4.1(b) gives Buyer the right to approve Seller's Engineering, Procurement, and Construction ("EPC") and Operation and Maintenance ("O&M") contracts. Section 5.2(c) requires Seller to "comply with all Project Contracts" (including the EPC and O&M contracts), thus making any breach of an EPC or an O&M contract by Seller grounds for a cross-default under the PPA. Section 5.2(d) gives Buyer the right to request review of Project Contracts.

**Q. DO YOU CONSIDER THESE PROVISIONS TO BE COMMERCIALLY REASONABLE?**

A. No, I do not. The PPA provides Buyer with remedies in the event of default by Seller. Buyer does not need, and it is not reasonable to require, control over Seller's third-party contracts or the ability to terminate the PPA based on events that may occur in those contractual relationships. I would note that the DEC and DEP proposed Large QF PPAs contain no similar terms.

**Q. WHAT DAMAGES ARE AVAILABLE TO DOMINION UNDER THE PROPOSED PPAS IN THE EVENT OF TERMINATION AFTER COD?**

**A.** Section 11.4 provides that in the event of termination after COD Buyer is entitled to damages calculated based on the difference between the prevailing market price for renewable energy from “a substantially similar renewable facility located in the same state.” This delta is then multiplied by the expected production of the facility over the remaining life of the PPA and discounted to a net present value. In addition, the proposed PPAs place a floor on Buyer’s damages recovery based on half the contract price or net energy rate.

**Q. DO YOU CONSIDER THIS PROVISION TO BE COMMERCIALLY REASONABLE?**

**A.** No, there are many problems with this provision, which should be deleted in its entirety (there are no comparable provisions in the DEC and DEP proposed Large QF PPAs). First, since Buyer is paying Seller a contract price equal to Buyer’s avoided energy costs, Buyer will suffer no harm if the PPA is terminated. (If Dominion were proposing to pay QFs for capacity, it could suffer some damages in the event of termination, but they would be calculated in a very different fashion.) Second, Witness Folsom emphasizes how bad PURPA PPAs are for ratepayers, in which case they should welcome any that go away. Third, it’s unknown in advance whether Buyer would have any need to procure additional energy, and thus whether it has the potential to be damaged by termination. Fourth, the floor on damages is totally unreasonable. If, for example, the contract price is $32/MWh and the market price is $34/MWh, Buyer’s actual damages if it had to procure replacement energy would be calculated based on $2/MWh. But the effect of the floor is that Seller would have to pay Buyer damages based on a presumed impact of $16/MWh. (It is worth noting in this regard that Dominion proposes that its *own* liability if it breaches or terminates the contract shall be mitigated in the event that the seller “is able (or should reasonably be able) to enter into alternative arrangements with another power purchaser to sell its energy output to the substitute power purchaser on reasonable terms.") Fifth, there is no reason that the delta should be based on a renewable facility since Buyer is not acquiring RECs and the contract price is based on avoided costs associated with a gas plant. Finally, if some form of post-COD damages are allowed, which SCSBA opposes, it should be clear here and in Section 3.5 that there are no Shortfall LDs payable in the event of post-COD termination.

**Q. WHAT MEASURE OF DAMAGES DO YOU BELIEVE IS APPROPRIATE IN THE EVENT OF TERMINATION AFTER COD?**

**A.** As in the DEC and DEP Large QF PPAs, I think it is appropriate for Dominion to be made whole for any overpayment to the Seller prior to termination relative to its applicable avoided cost rates. I have included language in Section 11.4 (Levitas-1) to achieve this result.

**Q. DO THE PROPOSED PPAS GIVE THE DOMINION A UNILATERAL RIGHT TO TERMINATE THE PPA UNRELATED TO SELLER'S PERFORMANCE?**

**A.** Yes. Section 11.10 of the proposed PPAs gives Buyer the ability to terminate the agreement for a period of twelve months after the Effective Date if Buyer experiences a "Qualifying Adverse Effect" or other extraordinary event, such as bankruptcy.

**Q. DO YOU CONSIDER THIS PROVISION TO BE COMMERCIALLY REASONABLE?**

**A.** No, I do not. This provision appears to be a carryover from PPAs executed when SCE&G's financial future was uncertain and it was contemplating a change in circumstances, such as the merger with Dominion which eventually occurred. Such a provision, which is otherwise unprecedented in my experience with PURPA PPAs and highly problematic for QFs, is no longer needed and should be deleted.

**Q. ARE THERE OTHER TERMS IN THE PROPOSED DOMINION PPAS THAT YOU THINK ARE COMMERCIALLY UNREASONABLE?**

**A.** Yes. In Levitas-1 I have made additional modifications to the proposed PPAs to address a number of less substantial but still important legal and commercial issues. These include the following:

- The definition of "Early Termination Fee" provides that, in the unlikely event of default by Buyer leading to termination by Seller in the first twelve months of Commercial Operation, Seller's damages would be based on an assumption that the Facility would produce only 85% of the Contract Quantity for the remainder of the term. This is unrealistic and should be increased to 95%.
- In the definition of "Environmental Liability," Seller should not be subject to liability arising from Hazardous Substances "near" the Facility (over which Seller has no control).
- Under definition of "Surety Bond," the bond must be in a form approved by Buyer "in its discretion." It would be in the interest of all parties and the Commission for the bond form to be included as an exhibit to the PPAs and approved by the Commission. I have provided a commercially reasonable form surety bond as Levitas-3. At a minimum, in the alternative, approval of a surety bond by Buyer should be in its "<u>reasonable</u> discretion."
- Section 5.1(e) contains an acknowledgement by Seller that certain actions by the Interconnecting Utility may result in reduced sales under the PPA. However, this clause refers to actions to address "system conditions," which is inappropriately broad and

vague. Under PURPA, the interconnecting utility may only curtail output to address system emergencies, or what is referred to under the proposed PPAs as "Emergency Conditions."

- In Sections 5.2(e) and (f) (which become (d) and (e) in my markup), Seller's indemnification of Buyer for Environmental Liability and personal energy and property damage should not extend to liability resulting from the negligent or intentional acts or omission of Buyer or its representatives. The exclusions as proposed by Dominion are too narrow.
- In Section 5.3(c), as in the DEC and DEP proposed Large QF PPAs, Seller's failure to achieve a Milestone should not be grounds for termination if it doesn't affect Seller's ability to achieve the Completion Date in a timely fashion.
- Unlike the Force Majeure provisions in the DEC and DEP PPAs, Section 10.2 does not include an extension of force majeure relief where the problem cannot be corrected in the defined tine period, but it could be remedied with an extension.
- Section 11.6 is an acknowledgement that the damages provided for in an event of default are reasonable liquidated damages. However, I don't think it's correct to describe them as liquidated damages, so I have deleted this section.
- Under Section 12.2, the Indemnifying Party is required to pay for counsel for the Indemnified Party if the latter is named as a defendant, which is a common occurrence in indemnity situations. I think it is more typical and reasonable for the Indemnified Party to pay for its own counsel if it chooses to be separately represented.

- Section 15.1 requires Buyer's prior written consent in order for Seller to pledge the agreement or associated revenues to a Financing Party. This is unnecessarily burdensome and is not required under the DEC and DEP Large QF PPAs.
- Section 15.13 provides that, in the event of damage to the Facility by certain weather and other unusual events, Seller must repair the Facility within 8 months or Buyer can terminate the PPA and recover its full termination damages. This is unreasonable and inconsistent with the Force Majeure section, which does not impose any liability on Seller in the event of PPA termination due to Force Majeure impacts that cannot be or are not remedied.
- In Section 15.14 (which becomes 15.13 in my markup), current and prospective investors and prospective purchasers should be added to the list of parties with whom confidential information can be shared. In addition, I'm not sure why the terms of the Agreement should be treated as confidential (other than project-specific information) since it will be a Commission-approved form document, but I have not proposed to delete that requirement.
- Section 15.16 (which becomes 15.15 in my markup) requires Seller to coordinate with Buyer when making public announcements about "the construction and operation of the Facility." It also requires Buyer's approval of any publicity materials "that refer to, or describe any aspect of, this Agreement or the Facility." Both terms are unreasonable and unnecessary (except perhaps with respect to publicity about the Agreement).

**Q. DO YOU BELIEVE THAT THERE ARE ADDITIONAL TERMS THAT SHOULD BE INCLUDED IN THE DOMINION PPAS TO MEET A STANDARD OF COMMERCIAL REASONABLENESS?**

**A.** Yes. I think that the PPA should include a right of the Seller to terminate the PPA without liability if the cost of interconnection facilities and network upgrades required for the facility to be interconnected to Dominion's system exceeds $75,000 per MW of project nameplate capacity. Given the QF's total lack of control over and visibility into Dominion's interconnection costs, and the extremely high interconnection costs that have been quoted to many QFs, it is reasonable to provide this limited off-ramp from the obligations. Given Dominion's general aversion to QF development, I can see no reason for them to object to PPA termination on this basis. In Levitas-1 I have added a new Section 11.9 dealing with this issue.

**Q. DO YOU AGREE WITH DOMINION WITNESS FOLSOM'S SUGGESTION THAT THE FACT THAT A FORM AGREEMENT HAS BEEN AGREED TO BY OTHER DEVELOPERS MEANS THAT IT IS APPROPRIATE?**

**A.** Not necessarily. A party faced with onerous contract terms may nonetheless be able to obtain financing but may have greater difficulty doing so or be required to pay higher financing costs. PURPA, as interpreted by FERC, requires that QFs be able to contract on terms that afford "reasonable opportunities" to attract capital, and the fact that sophisticated developers with access to capital on advantageous terms have been able to attract financing for particular projects does not mean that the terms are "reasonable." It is also important to keep in mind that parties wishing to sell energy to Dominion have nowhere else to sell their power and must incur substantial time and expense to challenge PPA terms they consider unreasonable.

**<u>Dominion's Notice of Commitment to Sell Form</u>**

**Q. DO YOU AGREE WITH WITNESS FOLSOM'S DESCRIPTION OF THE PURPOSE OF THE LEO CONCEPT UNDER PURPA?**

**A.** Not entirely. As Witness Folsom correctly notes, FERC originated the LEO concept to prevent a utility from circumventing PURPA's requirements by refusing to enter into a contract with the qualifying facility. *See* FERC Order No. 69, FERC Stats. & Regs. ¶ 30,128, *order on reh'g*, Order No. 69-A, FERC Stats. & Regs. ¶ 30,160 (1980), a*ff'd in part & vacated in part sub nom. Am. Elec. Power Serv. Corp. v. FERC*, 675 F.2d 1226 (D.C. Cir. 1982), *rev'd in part sub nom. Am. Paper Inst. v. Am. Elec. Power Serv. Corp.*, 461 U.S. 402 (1983). However, FERC has noted that a utility can also frustrate a QF's PURPA rights by delaying the signing of a contract, so that a later and lower avoided cost is applicable. *Cedar Creek Wind, LLC,* 137 FERC ¶ 61,006 at p. 5 (2011). Nor has FERC ever stated that a LEO can be established only when a utility "simply refuses to negotiate a PPA." To the contrary, FERC has provided that establishment of a LEO should turn solely on the QF's commitment, and not the utility's actions. *FLS Energy Inc.*, 157 FERC ¶ 61, 211 (December 15, 2016) at 9. In short, PURPA requires that QFs may unilaterally form LEOs by unequivocally committing to sell their output to the utility. And because establishment of a LEO must turn on the QF's actions and not the utility's, a state cannot require a QF to achieve certain milestones in the interconnection process as a condition of establishing a LEO.[1] FERC has also held that states cannot impose requirements that create "unreasonable obstacles" to LEO formation. *Hydrodynamics, Inc.*, 146 FERC ¶ 61,193 (Mar. 20, 2014) at 16.

[1] This is not to say that interconnection cannot be considered. The North Carolina Utilities Commission in 2017 revised the state's LEO standard to provide that a LEO cannot be established until (among other things) the QF has filed an interconnection request, and either (a) the QF has received a system impact study, or (b) 105 days have elapsed (this period represents the maximum amount of time allowed under the state's interconnection procedures for the receipt of a SIS report). *Order Establishing Standard Rates and Contract Terms For Qualifying Facilities*, Docket No. E-100 Sub 148 (Oct. 11, 2017) at 106.

**Q. IN YOUR OPINION WHAT MUST A QF DO TO FORM A LEO?**

**A.** The QF must make a binding commitment to sell its output to the utility at a defined price.

**Q. DO YOU AGREE THAT A QF SHOULD NOT HAVE THE ABILITY TO BIND THE UTILITY TO PURCHASE ITS OUTPUT AT A DEFINED PRICE IF THE QF IS ABLE TO WALK AWAY WITH NO CONSEQUENCES?**

**A.** Yes, I do. A QF that forms a non-contractual LEO should face consequences for failing to perform.

**Q. DO YOU AGREE WITH WITNESS FOLSOM THAT WHAT OTHER STATES REQUIRE WITH RESPECT TO LEO FORMATION IS RELEVANT IN THIS PROCEEDING?**

**A.** Not particularly. LEO formation is an area in which many states in my opinion have blatantly violated by PURPA by imposing requirements on QFs, such as some of those proposed by Dominion, that have nothing to with the QF's commitment to sell its output to the utility.

**Q. WHAT DOES DOMINION'S PROPOSED NOTICE OF COMMITMENT FORM PROVIDE WITH RESPECT TO A QF WHO SUBMITS AN EXECUTED NOTICE OF COMMITMENT FORM BUT FAILS TO EXECUTE A PPA IN A TIMELY FASHION?**

**A.** The form provides that, in addition to termination of the LEO, the QF will not be eligible for fixed-pricing for a period of two years.

**Q. DO YOU BELIEVE THIS IS COMMERCIALLY REASONABLE?**

**A.** No. I think it is overly harsh and not authorized by PURPA. It also provides no compensation to the utility for the QF's failure to perform.

**Q. WHAT DO YOU THINK WOULD BE A MORE APPROPRIATE REMEDY WHERE A QF FAILS TO HONOR ITS NON-CONTRACTUAL COMMITMENT?**

**A.** I think a QF who fails to perform under a LEO should be liable for the same damages it would face for failing to perform under a PPA.

**Q. AND WHAT DO YOU THINK THOSE DAMAGES SHOULD BE?**

**A.** As I previously testified, I think the liquidated damages for a QF's failure to achieve timely COD should be set at $5,000 per MW AC nameplate capacity up to 20 MW, and at $2,000 per MW above 20 MW. So a standard offer QF (with a maximum capacity of 2 MW) would be subject to maximum damages of $10,000.

**Q. DO YOU HAVE OTHER OBJECTIONS TO DOMINION'S PROPOSED NOTICE OF COMMITMENT TO SELL FORM?**

**A.** My biggest objections relate to the pre-conditions that Dominion proposes as eligibility criteria for execution of the form.

**Q. WHAT PRE-CONDITIONS DOES DOMINION ESTABLISH FOR LEO FORMATION?**

**A.** Witness Folsom identifies the following pre-conditions to LEO formation proposed by Dominion:

(1) Commitment to execute a PPA within 90 days and to deliver power within 365 days of Notice of Commitment Form Submittal Date;

(2) Commitment to deliver full electrical output to the Company for a period of 10 years, or for such lesser period that may be mutually agreed to in a PPA;

(3) Demonstration of control of the Project Site and required land-use approval and environmental permits;

(4) Requirement to have requested Interconnection Service from the Company and (if Interconnection Service has not been established) to have executed a System Impact Study agreement with all required technical information; and

(5) Payment of a non-refundable $5000 fee.

**Q WHICH OF THESE CONDITIONS DO YOU OBJECT TO?**

**A.** I think all of them are reasonable except the requirements that the QF have first secured all required land-use approvals and environmental permits, and that it place its facility in service within 365 days of executing the form. In addition, a small change is needed to the requirement relating to interconnection service to make clear that Seller need not have executed a System Impact Study Agreement unless one has been tendered to it by Dominion.

**Q. WHY DO YOU THINK THE PERMITTING REQUIREMENT IS UNREASONABLE?**

**A.** Obtaining environmental permits and land-use approvals can be an expensive and time-consuming process, sometimes costing in the hundreds of thousands of dollars. It is unreasonable to expect a QF to incur these expenses until it has secured a price for its output so that it can in turn secure financing for the project.

**Q. DO DOMINION'S PROPOSED PPAS REQUIRE THE QF TO HAVE OBTAINED ALL PERMITS AND LAND-USE APPROVALS BEFORE THE CONTRACT MAY BE EXECUTED?**

**A.** No. The proposed Dominion PPAs are silent on this subject.

**Q. IS THERE ANY LOGIC TO IMPOSING MORE ONEROUS REQUIREMENTS ON LEO FORMATION THAN ON CONTRACT FORMATION?**

**A.** None that I can discern.

**Q. WHY DO YOU OBJECT TO DOMINION'S REQUIREMENT THAT THE FACILITY BE PLACED IN SERVICE WITHIN 365 DAYS?**

**A.** QFs must be able to secure pricing before they can incur major development expenses, secure financing, and construct the project. While many QFs can complete the development cycle within a year, larger and more complex QFs may not be able to do so. But more significantly, there is simply no reason for including this concept in the Notice of Commitment to Sell form. The form establishes a deadline for PPA execution by the QF. The PPA will then govern the QF's obligations with respect to placing the Facility in service. I have addressed that issue in my testimony regarding Dominion's proposed PPAs. If this unnecessary requirement were to remain in the form, the proviso relating to the availability of sufficient interconnection facilities needs to be modified along the lines I previously suggested with respect to a similar issue in the proposed PPAs. "Interconnection facilities" is a defined term with a specific meaning (both in the proposed PPAs and in interconnection agreements). It does not include upgrades to the Interconnecting Utility's system that may be required beyond the Delivery Point to accommodate the output of the interconnection customer. Thus, if the 365-day in-service requirements remains in the form, it should apply only where there are sufficient network resources as well as interconnection facilities available as of the deadline.

**Q. IS DOMINION'S PROPOSAL TO REQUIRE QFS TO PAY A NON-REFUNDABLE $5000 FEE TO ESTABLISH A LEO UNREASONABLE?**

**A.** This is not unreasonable for utility-scale QFs. However, in the event a QF fails to deliver on its LEO and incurs liquidated damages as proposed earlier in my testimony, the damages owed should be reduced by the amount of the $5000 fee already paid.

**Q. DO YOU THINK THAT THE "MAKE-WHOLE" PROVISION IN SECTION 10 OF THE NOC FORM IS REASONABLE?**

**A.** Not as currently proposed. While I do not disagree with Witness Folsom's suggestion that the utility should be able to rely on QF commitments for resource planning purposes, and that a utility might incur time and resources that would be wasted on projects that fail to deliver power, the proposed "make-whole" provision is vague, open-ended, and subject to the potential for abuse. And given the fact that Dominion currently proposes to attach no capacity value to solar resources, it is hard to see how the Company is in fact relying to its detriment on the expectation that its PPAs are "sufficiently firm to ensure the purchaser can rely on receiving the contracted-for power." In any event, the liquidated damages proposal discussed earlier in my testimony are intended to address any harm to the company (and ratepayers). In Levitas-2 I have deleted Dominion's vague and unnecessary "make whole" provision in Section 10 of the form and replaced it with the liquidated damages provision consistent with my prior recommendation.

**Q. DO YOU HAVE ANY OTHER SUGGESTED REVISIONS TO THE PROPOSED NOTICE OF COMMITMENT TO SELL FORM?**

**A.** Yes. In Levitas-2 I have made two other recommended changes to the Form. First, in Section 6.iii of the Form, I have provided that the LEO terminates if Seller ceases to comply with the requirements of LEO formation and any such deficiency fails to cure within ten (10) business days. It seems reasonable to me that the LEO should terminate in these circumstances. Second, I have added language, similar to that which I proposed in connection with the proposed PPAs, giving the Seller the right to terminate the PPA without liability if the interconnection facilities and network upgrades required for the facility to be interconnected to Dominion's system exceed $75,000 per MW of nameplate capacity.

**Q. DO YOU HAVE ANY FURTHER COMMENTS REGARDING LEO FORMATION AND THE NOTICE OF COMMITMENT TO SELL FORM?**

**A.** In my opinion, any timing or eligibility requirements for LEO formation, whether through an executed PPA or some non-contractual process should be the same. The standard for when a QF should be able to lock in pricing should be the same whether the QF is doing so by executing a PPA or in some other fashion.

**Q. MAY DOMINION'S CONTRACTING PROCESS REDUCE THE NEED FOR QFS TO UTILIZE A NOTICE OF COMMITMENT TO SELL FORM?**

**A.** Yes. In my opinion, the best way for QFs to form LEOs is by signing a PPA that includes consequences for failing to perform and tendering it to the utility. That constitutes an unequivocal commitment by the QF to sell its output at a defined price and on defined terms and conditions. Where standard offer tariffs and contracts have been approved by the Commission, that is a simple process assuming that the forms are readily available and the utility allows such a submittal to be made. In the case of large QFs not eligible for a standard offer, this has been more problematic because there was neither an approved PPA nor established pricing. The General Assembly's decision to require a form contract for larger QFs solves the first problem. However, such a QF still must request indicative pricing from Dominion in order to know what pricing is available and to make a commitment to sell at that price. If a large QF can immediately tender a signed PPA upon the receipt of indicative pricing, there would be no need to utilize a Notice of Commitment to sell form. However, the contracting process for large QFs typically involves some back and for the between the parties with respect to project-specific information contained in the PPA. I therefore think it's appropriate for the QF to be able to lock in the indicative pricing by executing the form prior to the finalization of the PPA by the parties.

**<u>Dominion's Proposed Solar Integration Charge</u>**

**Q. DO YOU HAVE CONCERNS ABOUT DOMINION'S PROPOSED SOLAR INTEGRATION CHARGE?**

**A.** I have many concerns about the charge, including about the appropriateness of the process and methodology by which it was developed and the accuracy or validity of the assumptions and conclusions on which it is based. Those issues I leave to other SCSBA witnesses, including Mr. Burgess. But even assuming the integration charge is methodologically sound (which SCSBA believes it is not), I have concerns about Dominion's proposed approach of embedding the charge in its avoided cost rates rather than imposing it as a stand-alone charge

**Q. WHAT ARE YOUR CONCERNS WITH THIS APPROACH?**

**A.** This approach fails to recognize that any integration costs, if substantiated, are generated by all solar facilities, absent effective mitigation. That would be the case, for example, with respect to any solar facilities that may contract with Dominion pursuant to a competitive solicitation program or commercial and industrial program established by the Commission pursuant to Act 62. Since such facilities would not be paid a PPA contract price based on avoided costs, they would necessarily have to have an integration charge included in their PPAs or IAs rather than being embedded in the avoided cost rate. Similarly, Dominion is proposing to recover integration costs from certain QFs with existing PPAs through a charge, not through a reduction in the avoided cost rate.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

**A.** Yes.

**STATE OF SOUTH CAROLINA**

**BEFORE THE PUBLIC SERVICE COMMISSION**

**Docket No. 2019-184-E**

| | | |
|---|---|---|
| South Carolina Energy Freedom Act (H.3659) Proceeding to Establish Dominion Energy South Carolina, Incorporated's Standard Offer, Avoided Cost Methodologies, Form Contract Power Purchase Agreements, Commitment to Sell Forms, and Any Other Terms or Conditions Necessary (Includes Small Power Producers as Defined in 16 United States Code 796, as Amended) | ) | **CERTIFICATE OF SERVICE** |

This is to certify that I have caused to be served this day one copy of (1) the Direct Testimony of Hamilton Davis; (2) the Direct Testimony of Jon Downey; (3) the Direct Testimony of Steven J. Levitas; and (4) the Direct Testimony of Ed Burgess (redacted) to the persons named below at the addresses set forth via electronic mail:

| | |
|---|---|
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/s/ Jeremy C. Hodges
Jeremy C. Hodges

Columbia, SC
September 23, 2019